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09/574,735	05/18/2000	Lieven De Veylder	2283/301	1507

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EXAMINER

COLLINS, CYNTHIA E

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 04/09/2002

23

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/574,735	Applicant(s) DEVEYLDER ET AL.
Examiner	Art Unit	
Cynthia Collins	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 18 May 2000 and 24 January 2002 .

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-59 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-59 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. ____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8. 6) Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group IV, claims 2, 5, 7-25, 27-31 and 36-57, and SEQ ID NOS: 1 and 2, in Paper No. 22, is acknowledged. The traversal is on the ground(s) that The traversal is on the ground(s) that 35 U.S.C. 121 requires that inventions be independent *and* distinct to be restrictable, and that the interdependence of the claims directed to nucleic acid and amino acid consensus sequences and methods involving introduction into a plant of nucleic acid and amino acid sequences comprising the same is mandated because the description requirements of 35 U.S.C §112 compel disclosure of all aspects of the invention in the one application which Applicants have filed. This is not found persuasive because an application may properly be required to be restricted to one of two or more claimed inventions if they are either independent *or* distinct (MPEP § 803). This is also not found persuasive because the description requirements of 35 U.S.C §112 do not mandate that interdependent claims be used to claim independent inventions that are described in a single application, and because interdependent claims used to claim independent inventions may be restricted.

Claims 1, 3-4, 6, 26, 32-35 and 58-59 are withdrawn from consideration as being directed to nonelected inventions.

The requirement is still deemed proper and is therefore made FINAL.

Information Disclosure Statement

An initialed and dated copy of Applicant's IDS form 1449, Paper No. 8, is attached to the instant Office action.

Specification

The disclosure is objected to because of the following informalities:

The word "photomicrograph" is misspelled in the brief description of Figure 8A.

The brief description of Figure 11 on page 10 does not describe columns 1-5 in Figure 11.

The text on page 104 refers to the level of ICK2 mRNA and protein as shown in Figure 10. Figure 10 represents seed size distribution (page 10 and Figure 10).

The text on page 104 refers to a Figure without number in the last sentence on page 104.

The text on page 108 refers to Figure 8A and 8B with respect to seed shape. Figure 8A and 8B represent photomicrographs of stomata (page 9 and Figure 8A and 8B).

Appropriate correction is required.

Claim Objections

Claims 46 and 52-55 are objected to because of the following informalities:

In claim 46, "an" rather than "a" precedes "decreased".

Claim 54 recites "of of", rather than "of".

Claims 52-55 recite the SEQ ID NOS of nonelected inventions (SEQ ID NOS 3-6).

Claims 52-54 are dependent on the claims of nonelected inventions.

Appropriate correction is required.

Claims 52-54 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only and/or cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2, 5, 7-25, 27-31 and 36-57 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims are drawn to methods for controlling or altering growth characteristics in a plant comprising introducing into a plant a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor, and transgenic plants having altered growth characteristics comprising a nucleotide sequence encoding a cyclin-dependent kinase inhibitor.

The specification describes three novel nucleotide sequences (SEQ ID NOS:1, 3 and 5) that encode polypeptides (SEQ ID NOS:2, 4 and 6) having homology to known cyclin-dependent kinase inhibitors, and discloses the phenotypic effect of expressing only one, the nucleotide sequence of SEQ ID NO:1 that encodes the polypeptide of SEQ ID NO:2. This does not constitute a substantial portion of the genus that comprises cyclin-dependent kinases that control or alter growth characteristics when expressed in transgenic plants. Nakayama et al. teach that cyclin-dependent kinase inhibitors are classified into two distinct families that differ both structurally and functionally, the INK4 family and the Cip/Kip family (1998, BioEssays, Vol. 20 pages 1020-1029 Applicant's IDS). The novel cyclin-dependent kinase inhibitors described in the specification appear to belong to the Cip/Kip family only (specification, page 12 and page 82). Additionally, although members of the Cip/Kip family are structurally and biochemically similar, the range of phenotypes observed in knockout mice of different Cip/Kip members suggests that different members of the Cip/Kip family may nonetheless have diverse physiological functions (Nakayama et al. pages 1024-1026). Given that cyclin-dependent kinase

inhibitors are classified into two distinct families that differ both structurally and functionally, and given that different members of the same family may have diverse physiological functions, the disclosure of three novel nucleotide sequences that encode polypeptides having homology to known Cip/Kip cyclin-dependent kinase inhibitors, only one of which is known to have the claimed phenotypic effects when expressed in a transgenic plant, does not provide an adequate description of the claimed genus, and in view of the level of knowledge and skill in the art, one skilled in the art would not recognize from the disclosure that the applicant was in possession of the genus that comprises cyclin-dependent kinases that control or alter growth characteristics when expressed in transgenic plants (see Written Description Guidelines, Federal Register, Vol. 66, No. 4, January 5, 2001, pages 1099-1111).

Claims 2, 5, 7-25, 27-31 and 36-57 are rejected under 35 U.S.C. 112, first paragraph. The specification, while being enabling for a method of decreasing cyclin-dependent kinase activity in *Arabidopsis* plants which comprises introducing into a plant a nucleotide sequence of SEQ ID NO:1 encoding the homologous cyclin-dependent kinase inhibitor ICK2 of SEQ ID NO:2, wherein said method increases the level of ICK2 in a cell, increases plant cell size in petals leaves and stems, decreases cell number in a plant, increases leaf serration, increases the size of stomata, reduces petal size, reduces leaf veination, decreases endoreduplication and ploidy level in mature leaf cells, and reduces seed size, compared to wild type plants, does not reasonably provide enablement for methods of altering growth characteristics in plants which comprise introducing into a plant a nucleotide sequence encoding a cyclin-dependent kinase inhibitor, wherein said method modifies plant cell size, modifies cell number in a plant, alters leaf shape, alters leaf size, increases gas exchange and photosynthesis, alters tissue or organ shape or size, alters leaf veination, facilitates the transition from the mitotic cycle to G1 arrest, alters seed size,

or alters seed shape, compared to wild type plants. Claims 2 and 37 encompass methods and plants in which any growth characteristic is controlled or altered in any way. The method for modifying plant cell size of claim 7 encompasses methods which both increase and decrease plant cell size. The method for modifying cell number in a plant of claim 11 encompasses methods which both increase and decrease plant cell number. The method of altering leaf shape of claim 14 and the transgenic plant having altered leaf shape of claim 38 encompass methods and plants in which leaf shape is altered in any way. The method of altering leaf size of claim 15 and the transgenic plant having altered leaf size of claim 39 encompass methods and plants in which leaf size is both increased and decreased. The method of altering tissue or organ or floral petal shape of claims 19 and 20 and the transgenic plant having altered petal shapes of claim 42 encompass methods and plants in which tissue or organ or floral petal shape is altered in any way. The transgenic plant having altered petal size of claim 43 encompasses plants in which petal size is both increased and decreased. The method of altering venation pattern in a plant leaf and the transgenic plant having altered venation of claim 44 encompass methods and plants in which venation is altered in any way. The transgenic plant of claim 45 encompasses plants in which the ploidy level is altered in any way. The method of facilitating the transition from the mitotic cycle to G1 arrest in a plant cell of claims 27-29 encompasses methods in which the transition is facilitated by any means. The method of altering seed size of claim 30 and the transgenic plant having altered seed size of claim 47 encompass methods and plants in which seed size is both increased and decreased. The method of altering seed shape of claim 31 encompasses methods in which seed shape is altered in any way. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The claims are drawn to methods for controlling or altering growth characteristics in a plant comprising introducing into a plant a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor, and transgenic plants having altered growth characteristics comprising a nucleotide sequence encoding a cyclin-dependent kinase inhibitor.

The specification discloses a method of making transgenic *Arabidopsis* plants which comprises introducing into an *Arabidopsis* plant a nucleotide sequence of SEQ ID NO:1 encoding the homologous cyclin-dependent kinase inhibitor ICK2 of SEQ ID NO:2 under the control of the CaMV 35S promoter (page 104). The resultant transgenic plants were phenotypically different from wild type plants with respect to a number of traits. Compared to wild type plants, the transgenic plants expressed more ICK2 mRNA and protein and exhibited larger cells, larger stomata, smaller petals, smaller seeds, more highly serrated leaves with less veination, and reduced endoreduplication and ploidy level in the cells of mature leaves (pages 104-108). The specification does not disclose the effect of expressing any other cyclin-dependent kinase inhibitor under the control of any other promoter in any other plant. While one of skill in the art could readily transform a plant with a nucleic acid encoding a cyclin-dependent kinase inhibitor, it would require undue experimentation for one of skill in the art to determine which nucleic acids encoding cyclin-dependent kinase inhibitors would encode a protein that would produce the claimed phenotypic effects when expressed in a transgenic plant. Additionally, the specification does not disclose whether expressing any cyclin-dependent kinase inhibitor in any plant will affect leaf size, gas exchange, photosynthesis, tissue or organ shape, or the transition from the mitotic cycle to G1 arrest. While one of skill in the art could readily identify changes in leaf size, gas exchange, photosynthesis, tissue or organ shape, or the transition from the mitotic cycle to G1 arrest, it would require undue experimentation for one of skill in the art to determine

how to express a nucleic acid encoding a cyclin-dependent kinase inhibitor to produce the claimed phenotypic effects.

Guidance for making and using the claimed invention is necessary for enablement because controlling or altering growth characteristics in a plant by expressing a heterologous cell cycle protein is highly unpredictable.

Riou-Khamlich et al. teach the transformation of *Arabidopsis* plants with the genetic sequence encoding the *Arabidopsis* D-type cyclin CycD3 (Science, 5 March 1999, Vol. 283, pages 1541-1544). Constitutive expression of CycD3 in three independently transformed plants resulted in the phenotypic alterations of leaf curling, disorganized meristems, increased leaf number, late flowering, and delayed senescence (page 1542, paragraph spanning columns 2 and 3).

Cockcroft et al. teach the transformation of tobacco plants with the genetic sequence encoding the *Arabidopsis* D-type cyclin CycD2 (Nature, 1 June 2000, Vol. 405, pages 575-579). Constitutive expression of CycD2 in transformed plants resulted in plants that were morphologically similar to wild-type controls and non-transgenic segregant siblings (page 576 column 1 2nd full paragraph, and page 577 *Figure 2*). The transformed plants differed from wild-type controls and non-transgenic segregant siblings in that the transformed plants exhibited an accelerated growth rate that was correlated with an accelerated rate of cell division (page 576 column 1 2nd full paragraph, and page 578 *Figure 4*).

Given the unpredictability of controlling or altering growth characteristics in a plant by expressing a heterologous cell cycle protein, the absence of guidance in the specification for making and using transgenic plants exhibiting the claimed phenotypes, the lack of working examples, and given the breadth of the claims which encompass methods of controlling or

altering growth characteristics in any plant by introducing any nucleic acid molecule encoding any cyclin-dependent kinase inhibitor, it would require undue experimentation by one skilled in the art to make and/or use the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 5, 7-25, 27-29, 36-39 and 42-57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 2 is incomplete because it is missing the essential steps of expressing the nucleic acid molecule introduced into the plant cell, and controlling or altering growth characteristics in a plant, as set forth in the preamble.

Claim 5 is indefinite in the recitation of "increasing the level of cyclin-dependent kinase inhibitor", because "increasing" is a relative term lacking a comparative basis.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 5 is incomplete because it is missing the essential steps of expressing the nucleic acid molecule introduced into the plant cell, and increasing the level of cyclin-dependent kinase inhibitor in a plant cell as set forth in the preamble.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP

§ 2172.01. Claim 7 is incomplete because it is missing the essential steps of expressing the nucleic acid molecule introduced into the plant cell, and modifying plant cell size as set forth in the preamble.

Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 11 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 14 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 15 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 17 is indefinite in the recitation of "increasing stomata size", because "increasing" is a relative term lacking a comparative basis.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 17 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 18 is indefinite in the recitation of "increasing gas exchange and photosynthesis", because "increasing" is a relative term lacking a comparative basis.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 18 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 19 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 21 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 25 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 27 is indefinite in the recitation of "facilitating". It is unclear what effect the method has on the transition from the mitotic cycle to G1 arrest when the transition is "facilitated".

Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 27 is incomplete because it is missing the essential steps of expressing the

nucleic acid molecule introduced into the plant cell, and facilitating the transition from the mitotic cycle to G1 arrest in a plant cell as set forth in the preamble.

Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 30 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claim 31 is incomplete because it is missing the essential step of expressing the nucleic acid molecule introduced into the plant cell.

Claim 36 is indefinite in the recitation of "an essentially derived variety thereof". It is unclear what would be "essentially derived" from the transgenic plant to make an essentially derived variety thereof.

Claim 46 is indefinite in the recitation of "wherein the cells have a decreased ploidy level", because "decreased" is a relative term lacking a comparative basis.

Claim 48 is indefinite in the recitation of "wherein the total cell number of the plant is decreased", because "decreased" is a relative term lacking a comparative basis.

Claim 49 is indefinite in the recitation of "comprising cells of increased size", because "increased" is a relative term lacking a comparative basis.

Claim 49 is indefinite in the recitation of "having increased photosynthetic capacity", because "increased" is a relative term lacking a comparative basis.

Claim 50 is indefinite in the recitation of "comprising leaves with increased stomata size", because "increased" is a relative term lacking a comparative basis.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 56 and 57 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are drawn to harvestable parts, propagation material and cut flowers from the transgenic plant of claim 36, but are not limited to harvestable parts, propagation material and cut flowers that comprise the construct that was introduced into the parent plant. Due to the limitations of transformation technology, a particular construct introduced into the parent plant would not be introduced into or inherited by all the cells of the parent plant. In addition, given that there is no indication that there would be any other distinguishable characteristics of the claimed harvestable parts, propagation material and cut flowers, it is unclear whether they would be distinguishable from harvestable parts, propagation material and cut flowers that would occur in nature. See *Diamond v. Chakrabarty*, 447 U.S. 303 (1980), *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 233 U.S. 127 (1948), and *In re Bergey*, 195 USPQ 344, (CCPA). The amendment of the claims to recite that the harvestable parts, propagation material and cut flowers comprise the construct that was introduced into the parent plant would overcome the rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 2, 5, 7-25, 27-31, 36-51 and 56-57 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 99/64599 (16 December 1999, Applicant's IDS).

The claims are drawn to methods for controlling or altering growth characteristics in a plant comprising introducing into a plant a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor, and transgenic plants having altered growth characteristics comprising a nucleotide sequence encoding a cyclin-dependent kinase inhibitor.

WO 99/64599 teaches methods for controlling or altering growth characteristics in a plant comprising introducing into a plant a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor, and transgenic plants having altered growth characteristics comprising a nucleotide sequence encoding a cyclin-dependent kinase inhibitor (pages 27-31). WO 99/64599 explicitly teaches a method that reduces or eliminates petals in transgenic plants (page 27 Table 1). Although WO 99/64599 does not explicitly teach other phenotypic effects on cell size, cell number, leaf shape, etc., such phenotypic effects would be inherent given that the method taught by WO 99/64599 does not differ from the claimed methods.

Remarks

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Collins whose telephone number is (703) 605-1210. The examiner can normally be reached on Monday-Friday 8:45 AM -5:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (703) 306-3218. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

CC
April 5, 2002


PHUONG T. BUI
PRIMARY EXAMINER
4/5/02